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EXAMINER
KUMAR, SRILAKSHMI K

ART UNIT	PAPER NUMBER
2629	

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

PTOL-90A (Rev. 04/07)

	Application No.	Applicant(s)
Office Action Summary	09/836,978	METZ, WERNER
	Examiner	Art Unit	
	SRILAKSHMI K. KUMAR	2629	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
  Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on <u>18 June 2009</u>.

2a)☒ This action is **FINAL**.   2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) <u>1,5-11,14,17-21,26-28 and 30</u> is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) <u>1,5-8,10,11,14,17,18,20,21,26-28 and 30</u> is/are rejected.

7)☒ Claim(s) <u>9 and 19</u> is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All   b)☐ Some * c)☐ None of:

      1.☐ Certified copies of the priority documents have been received.

      2.☐ Certified copies of the priority documents have been received in Application No. _____.

      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1)☐ Notice of References Cited (PTO-892)

2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3)☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.

4)☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____

5)☐ Notice of Informal Patent Application

6)☐ Other: _____.

DETAILED ACTION

The following office action is in response to the request for reconsideration, filed on June 18,

2009. Claims 1, 5-11, 14, 17-21, 26-28 and 30 are pending.

Board of Patent Appeals and Interferences Decision

The Board of Patent Appeals and Interferences (BPAI) reviewed the appeal, and has

reversed the examiner with respect to the 35 USC 103 rejection of Mumford (US 6,377,249) in

view of Wiebe (US 6,689,966).

Claim Rejections - 35 USC § 103

1.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in
> section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are
> such that the subject matter as a whole would have been obvious at the time the invention was made to a person
> having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the
> manner in which the invention was made.

2.   Claims **1, 5-9, 10, 11, 14, 17, 18, 20, 21, 26, 27, 28 and 30** are rejected under 35 U.S.C.

103(a) as being unpatentable over Tanimura (JP 61157930) in view of Mumford (US 6,377,249).

As to independent **claim 1**, Tanimura teaches a method comprising; resolving a display

into at least two regions (Figs. 3A-C, page 4, second paragraph) ; and generating a different

sequence of characteristic values each corresponding to a unique sequence of colors in each of

said regions until the position of a sensor with respect to said regions is determined (Figs. 3A-C,

and page 4, where the dot indicates the position assigned by the input pen; where the display is

split into two portions A and A'. Where each position on the screen has a unique sequence of

color inversions that take place until the position is determined.   The regions are given either

black or white color. It is determined that the dot is in region A'. Then region A' is again split,

and continually split and color values assigned until the position of the dot is determined.).

Tanimura does not teach using primary colors. Mumford teaches an electronic light pen system

where the display uses three primary colors (R, G, B) in the regions (Mumford, abstract, col. 6,

lines 8-13). It would have been obvious to one of ordinary skill in the art at the time the

invention was made to include using primary colors of RGB as taught by Mumford into

Tanimura as the primary colors for displays are well known and would provide a display with

increased marketability to users.

> As to dependent **claim 5**, limitations of claim 1, and further including Tanimura teaches
generating a different sequence of only two color values (page 4, second paragraph, where the
colors, black and white are used).

> As to dependent **claim 6**, limitations of claim 1, and further including Tanimura teaches
displaying a series of frames and interspersing, among said frames, additional frames having at
least two regions each displaying a sequence of characteristic values (page 4, where there are
multiple of frames, and divisions of frames for detection).

> As to dependent **claim 7**, limitations of claim 6, and further including Tanimura teaches
displaying said additional frames such that they are substantially undetectable by the user (on
page 4, where the speed for displaying, dividing and sequencing to determine the location is
done at a high speed and on page 7, where there is minimal flickering of the screen teaches the
undetectability).

> As to dependent **claim 8**, limitations of claim 1, and further including Tanimura teaches
generating a sequence of characteristic values by displaying a time sequence of frames each
including at least two regions, and each of said regions displaying a timed sequence of

characteristic values (taught on pages 4 and 5, where the display is divided into frames and the

division of frames are accomplished by time sequence of one after another and at an increased

speed).

As to dependent **claim 10**, limitations of claim 1, further including, Tanimura teaches

developing a sequence using fewer characteristic values than the number of regions (Fig. 3B,

there are three regions, but only two color characteristic values are used, as detailed on page 4).

As to independent **claim 11**, Tanimura teaches an article (Fig. 4) comprising a medium

storing instructions (memory, item 6 and RAM, item 11, which are well known to store

instructions) that enable a processor (cpu, item 5) based system to; resolving a display into at

least two regions (Figs. 3A-C, page 4, second paragraph) ; and generating a different sequence of

characteristic values each corresponding to a unique sequence of colors in each of said regions

until the position of a sensor with respect to said regions is determined (Figs. 3A-C, and page 4,

where the dot indicates the position assigned by the input pen; where the display is split into two

portions A and A'. Where each position on the screen has a unique sequence of color inversions

that take place until the position is determined. The regions are given either black or white color.

It is determined that the dot is in region A'. Then region A' is again split, and continually split

and color values assigned until the position of the dot is determined). Tanimura does not teach

using primary colors. Mumford teaches an electronic light pen system where the display uses

three primary colors (R, G, B) in the regions (Mumford, abstract, col. 6, lines 8-13). It would

have been obvious to one of ordinary skill in the art at the time the invention was made to

include using primary colors of RGB as taught by Mumford into Tanimura as the primary colors

for displays are well known and would provide a display with increased marketability to users.

As to dependent **claim 14**, limitations of claim 11, Tanimura teaches further storing instructions that enable the processor based system to generating a different sequence of only two color values (page 4, second paragraph, where the colors, black and white are used, page 5 and 6, teach how the two color values are generated).

As to dependent **claim 17**, limitations of claim 11, Tanimura teaches further storing instructions that enable the processor based system to cause a series of frames and interspersing, among said frames, additional frames having at least two regions each displaying a sequence of characteristic values (page 4, where there are multiple of frames, and divisions of frames for detection).

As to dependent **claim 18**, limitations of claim 11, Tanimura teaches further storing instructions that enable the processor based system to generate the difference sequence of characteristic values by displaying a time sequence of frames each including at least two regions, and each of said regions displaying a time sequence of characteristic values ((taught on pages 4 and 5, where the display is divided into frames, and the division of frames are accomplished by time sequence of one after another and at an increased speed).

As to independent **claim 20**, Tanimura teaches a system comprising a processor (Fig. 4, item 5, cpu); a memory (Fig. 4, items 6, memory and 11, RAM) coupled to said processor, said memory (memory, item 6 and RAM, item 11, well known to store instructions) storing instructions that enable the system to resolve a display into at least two regions (Figs. 3A-C, page 4, second paragraph) ; and generate a different sequence of characteristic values each corresponding to a unique sequence of primary colors in each of said regions until the position of a sensor with respect to said regions is determined (Figs. 3A-C, and page 4, where the dot

indicates the position assigned by the input pen; where the display is split into two portions A

and A'. Where each position on the screen has a unique sequence of color inversions that take

place until the position is determined. The regions are given either black or white color. It is

determined that the dot is in region A'. Then region A' is again split, and continually split and

color values assigned until the position of the dot is determined). Tanimura does not teach using

primary colors. Mumford teaches an electronic light pen system where the display uses three

primary colors (R, G, B) in the regions (Mumford, abstract, col. 6, lines 8-13). It would have

been obvious to one of ordinary skill in the art at the time the invention was made to include

using primary colors of RGB as taught by Mumford into Tanimura as the primary colors for

displays are well known and would provide a display with increased marketability to users.

     As to dependent **claim 21**, limitations of claim 20, and further comprising, Tanimura

teaches wherein the display is coupled to said processor (Fig. 4, where the display, 7, is coupled

to the processor, cpu, 5).

     As to dependent **claim 26**, limitations of claim 20, and further comprising, Tanimura

teaches wherein said memory (item 6 and 11, memory and RAM, respectively) stores

instructions that enable the system to generate a different sequence of only two color values in

each region (page 4, second paragraph, where the colors, black and white are used, page 5 and 6,

teach how the two color values are generated).

     As to dependent **claim 27**, limitations of claim 20, and further comprising, Tanimura

teaches wherein said memory stores instructions that enable the system to cause a series of

frames to be displayed while interspersing, among said frames, additional frames having at least

two regions each displaying a sequence of characteristic values (page 4, where there are multiple

of frames, and divisions of frames for detection).

As to dependent **claim 28**, limitations of claim 20, and further comprising, Tanimura

teaches wherein said memory stores instructions that enable the system to generate a different

sequence of characteristic values by displaying a time sequence of frames each including at least

two regions, and each of said regions displaying a time sequence of characteristic values (taught

on pages 4 and 5, where the display is divided into frames and the division of frames are

accomplished by time sequence of one after another and at an increased speed).

As to dependent **claim 30**, limitations of claim 20, and further comprising, Tanimura

teaches wherein said sensor is a light sensor that detects a characteristic value in the form of light

(Pages 5-6, where the sensor senses the black and white light of the regions).

Allowable Subject Matter

3.   Claims **9 and 19** are objected to as being dependent upon a rejected base claim, but

would be allowable if rewritten in independent form including all of the limitations of the base

claim and any intervening claims.

4.   The following is a statement of reasons for the indication of allowable subject matter:

With respect to claims 9 and 19, the prior art of record do not teach interspersing frames

containing said characteristic values and frames not containing said characteristic values.

Response to Arguments

5.   Applicant's arguments filed June 18, 2009 have been fully considered but they are not

persuasive.

Applicant argues where as the Board of Patent Appeals and Interferences "found that the combination of Wiebe and Mumford would not result in the applicant's claim 1 that recites generating a different sequence of characteristic values each corresponding to a unique sequence of primary colors because…Mumford does not teach this feature...Thus, the Board has already found that Mumford does not teach generating a unique sequence of primary colors." As shown by the rejection above, the prior art of Mumford is applied to teach the use of primary colors only. Mumford is not applied to teach a unique sequence.

Applicant argues where "Most certainly, there is no unique sequence of primary colors in Tanimura". As shown by the rejection above, Tanimura teaches generating a sequence of characteristic values each corresponding to a unique sequence. While Tanimura teaches a unique sequence, Tanimura does not teach primary colors. Tanimura only teaches generating a unique sequence using black and white. The prior art of Mumford teaches the use of primary colors. Therefore the combination of Tanimura and Mumford by simple substitution of primary colors as taught by Mumford into Tanimura's unique sequence would teach the claimed invention.

Further, in response to applicant's arguments against the references individually, one cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); *In re Merck & Co.,* 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986).

As such, the combination of the prior art of Tanimura and Mumford renders the pending claims obvious. Therefore, the rejection is maintained and made FINAL.

Conclusion

6.   **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time

policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE

MONTHS from the mailing date of this action. In the event a first reply is filed within TWO

MONTHS of the mailing date of this final action and the advisory action is not mailed until after

the end of the THREE-MONTH shortened statutory period, then the shortened statutory period

will expire on the date the advisory action is mailed, and any extension fee pursuant to 37

CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event,

however, will the statutory period for reply expire later than SIX MONTHS from the mailing

date of this final action.

Any inquiry concerning this communication or earlier communications from the

examiner should be directed to SRILAKSHMI K. KUMAR whose telephone number is

(571)272-7769. The examiner can normally be reached on 7:00 am to 4:30 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, Sue Lefkowitz can be reached on 571 272 3638. The fax phone number for the

organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent

Application Information Retrieval (PAIR) system. Status information for published applications

may be obtained from either Private PAIR or Public PAIR. Status information for unpublished

applications is available through Private PAIR only. For more information about the PAIR

system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR

system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would

like assistance from a USPTO Customer Service Representative or access to the automated

information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Srilakshmi K Kumar/
Primary Examiner
Art Unit 2629

SKK
September 9, 2009